



1
SEQUENCE LISTING

<1> DIVERSA CORPORATION
CALLEN, Walter
MATHUR, Eric

<120> ENZYMES HAVING HIGH TEMPERATURE POLYMERASE ACTIVITY AND METHODS OF USE THEREOF

<130> DIVER1350-2

<140> US 09/656,309

<141> 2000-09-06

<160> 2

<170> PatentIn version 3.0

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<211> 2412

<212> DNA

<213> Pyrolobus fumarius

<220>

<221> CDS

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Arg Val Val Leu Ile Asp Arg Ser Phe Arg Pro Tyr Phe Tyr Ala Leu	
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Leu Ser Arg Pro Lys Ser Pro Ile Ile Gly Val Glu Asp Asp Lys Arg	
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Lys Tyr Phe Gly Arg Pro Arg Arg Val Leu Arg Ile Arg Thr Val Leu	
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Pro Glu Ala Val Arg Glu Tyr Arg Glu Leu Val Lys Asn Val Asp Gly	
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ggt gag gat gtt cta gag gcg gat ata cgc ttc gct atg cgc tat ctc	384

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Leu Ser Arg Pro Lys Ser Pro Ile Ile Gly Val Glu Asp Asp Lys Arg
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Lys Tyr Phe Gly Arg Pro Arg Arg Val Leu Arg Ile Arg Thr Val Leu
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Pro Glu Ala Val Arg Glu Tyr Arg Glu Leu Val Lys Asn Val Asp Gly
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Val Glu Asp Val Leu Glu Ala Asp Ile Arg Phe Ala Met Arg Tyr Leu
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Ile Asp His Asp Leu Phe Pro Phe Thr Trp Tyr Arg Val Glu Ala Glu
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Pro Leu Glu Asn Lys Met Gly Phe Arg Val Asp Lys Val Tyr Leu Val
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Lys Ser Arg Pro Glu Pro Leu Tyr Gly Glu Ala Leu Ala Pro Thr Lys
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Leu Pro Asp Leu Arg Ile Leu Ala Phe Asp Ile Glu Val Tyr Ser Lys

180

185

190

Gln Gly Ser Pro Arg Pro Glu Arg Asp Pro Val Ile Val Ile Ala Val
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Lys Thr Asp Asp Gly Asp Glu Val Leu Phe Ile Ala Glu Gly Lys Asp
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Asp Arg Lys Pro Ile Arg Glu Phe Val Glu Tyr Val Lys Arg Tyr Asp
225 230 235 240

Pro Asp Ile Ile Val Gly Tyr Asn Asn Asn His Phe Asp Trp Pro Tyr
245 250 255

Leu Leu Arg Arg Ala Arg Ile Leu Gly Ile Lys Leu Asp Val Thr Arg
260 265 270

Arg Val Gly Ala Glu Pro Thr Thr Ser Val His Gly His Val Ser Val
275 280 285

Pro Gly Arg Leu Asn Val Asp Leu Tyr Asp Tyr Ala Glu Glu Met Pro
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Glu Ile Lys Ile Lys Ser Leu Glu Glu Val Ala Glu Tyr Leu Gly Val
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Met Lys Lys Ser Glu Arg Val Ile Ile Asn Trp Trp Glu Ile Pro Asp
325 330 335

Tyr Trp Asp Asp Pro Lys Lys Arg Pro Leu Leu Leu Gln Tyr Ala Arg
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Asp Asp Val Arg Ala Thr Tyr Gly Leu Ala Glu Lys Ile Leu Pro Phe
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Ala Met Ser Val Gly Phe Arg Leu Glu Trp Tyr Leu Ile Arg Ala Ala
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Phe Lys Met Lys Glu Leu Val Pro Asn Arg Val Glu Arg Pro Glu Glu
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Ala Gly Leu Leu Glu Asp Gly Arg Ile Asp Ile Val Gly Phe Glu Ala
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Pro Ser Gln Ile Asp Val Thr Tyr Tyr Val Asp His Gln Ile Ile Pro
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Lys Ser Lys